WHAT IS CLAIMED IS:

1. A lithographic apparatus comprising:

at least one support structure adapted to clamp an object thereon, said support structure and said object clamped on said support structure defining a compartment, and

a fluid supply structure in communication with said compartment, said fluid supply structure being constructed and arranged to supply a fluid to said compartment, wherein said fluid supply structure includes a meter arranged to measure a change in at least one of flow velocity of said fluid and pressure of said fluid as a function of time, in order to detect whether or not said object is correctly clamped on said support structure.

2. An apparatus according to claim 1, wherein

said meter is a flow velocity meter connected to a control unit arranged to receive a value representative of said flow velocity of said fluid and arranged to determine a change in said flow velocity of said fluid as a function of time and to compare said change with a predetermined value of said change.

3. An apparatus according to claim 1, wherein

said meter is a pressure meter connected to a control unit arranged to receive a value representative of said pressure of said fluid and arranged to determine a change in said pressure of said fluid as a function of time and to compare said change with a predetermined value of said change.

4. An apparatus according to claim 1, wherein

the at least one support structure comprises:

a first support structure for supporting a patterning device, said patterning device serving to pattern a beam of radiation according to a desired pattern to form a patterned beam,

a second support structure for holding a substrate,

and wherein said apparatus further comprises:

a radiation system for providing said beam of radiation and

a projection system for projecting said patterned beam onto a target portion of said substrate, and wherein at least one of said patterning device or said substrate is clamped on said first support structure or said second support structure, respectively.

5. An apparatus according to claim 1, wherein

said fluid is a gas comprising argon.

6. An apparatus according to claim 1, wherein

said fluid supply structure is adapted to increase said pressure in said compartment from a first level to a second level during a predetermined period of time and subsequently decrease said pressure from said second level to a third level.

7. An apparatus according to claim 6, wherein

said first, second, and third pressure levels are in the range of 8 mBar and 12 mBar.

8. An apparatus according to claim 6, wherein

said period of time is in the range of 1 s and 30 s.

9. A method to detect correct clamping of an object on a support structure, which support structure and which object clamped on the support structure define a compartment, the method comprising:

supplying a fluid to the compartment; and

measuring a change in at least one of flow velocity of the fluid and pressure of the fluid as a function of time.

10. A computer system to detect correct clamping of an object on a support structure, which support structure and which object clamped on the support structure define a compartment, the system comprising:

means for supplying a fluid to the compartment; and

means for measuring a change in at least one of flow velocity of the fluid and pressure of the fluid as a function of time.

11. A computer-readable medium encoded with a computer program to detect correct clamping of an object on a support structure, which support structure and which object clamped on the support structure define a compartment, the program comprising:

supplying a fluid to the compartment; and

measuring a change in at least one of flow velocity of the fluid and pressure of the fluid as a function of time.

12. A support structure assembly for use in a lithographic apparatus, comprising:

at least one support structure adapted to clamp an object thereon, said support structure and the object clamped on said support structure defining a compartment, and

a fluid supply structure in communication with said compartment, said fluid supply structure being constructed and arranged to supply a fluid to said compartment, wherein said fluid supply structure includes a meter arranged to measure a change in at least one of flow velocity of said fluid and pressure of said fluid as a function of time, in order to detect whether or not the object is correctly clamped on said support structure.